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managed by Brookhaven Science Associates
for the U.S. Department of Energy

Mr. Brian Jankauskas
New York State Dept. of Environmental Conservation
Division of Environmental Remediation
625 Broadway – 12th Floor
New York, New York 12233-7051

March 4, 2021

Ms. Sharon Hartzell
Federal Facilities Section
U.S. EPA – Region II
290 Broadway – 18th Floor
New York, New York 10007-1866

Dear Mr. Jankauskas and Ms. Hartzell:

**SUBJECT: BROOKHAVEN NATIONAL LABORATORY (BNL) INTERAGENCY
AGREEMENT (IAG) – MONTHLY REPORT FOR FEBRUARY 2021**

In accordance with the Interagency Agreement (IAG) for Brookhaven National Laboratory (BNL), enclosed is the Monthly Report for February 2021 covering the Long-term Stewardship (LTS) areas listed below:

- Brookhaven Graphite Research Reactor (BGRR) Surveillance and Maintenance
- High Flux Beam Reactor (HFBR), including the Waste Loading Area (WLA) Surveillance and Maintenance
- Soil and Water Remediation

If you have any questions, please call Gerald Granzen at (631) 344-4089.

Sincerely,

A handwritten signature in black ink, appearing to read "W. Dorsch", is written over a horizontal line.

William Dorsch, Manager
Groundwater Protection Group

Enclosure, as stated:
cc: w/encl.

P. Armani, NYSDEC
C. Costello, NYSDOH
S. Karpinski, NYSDOH
D. O'Hehir, NYSDOH
S. Rushford, NYSDOH
A. Rapijko, SCDHS
J. Wanlass, SCDHS
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J. Carter, BHSO
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R. Gordon, BHSO
G. Granzen, BHSO
C. Kwok, BHSO
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J. Remien, BSA
S. Coleman, BSA
R. Howe, BSA
D. Paquette, BSA
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File: GWER 17.1.21

**Brookhaven National Laboratory
Interagency Agreement (IAG) Monthly Report
February 2021
Long Term Stewardship (LTS) Activities**

**BROOKHAVEN GRAPHITE RESEARCH REACTOR (BGRR) SURVEILLANCE AND
MAINTENANCE**

Current Month Technical Performance Analysis

Accomplishments and/or Technical Achievements

- Conducted routine surveillance and maintenance (S&M) activities.

Highlights of any changes to objectives and description of any changes in technical approach

- None.

Key Issues

- None.

Planned Actions for the Next 90 Days

- Continue S&M activities.
- An entry will be made into the south below ground ducts to install a new leak detection sensor 3/3/21.
- The next quarterly inspection of the high bay and former offices is scheduled for 4/23/21.

**HIGH FLUX BEAM REACTOR (HFBR) INCLUDING, STACK, GROUNDS, AND WASTE
LOADING AREA (WLA) SURVEILLANCE AND MAINTENANCE**

Current Month Technical Performance Analysis

Accomplishments and/or Technical Achievements

- BSA and BHSO participated in the weekly stack demolition coordination teleconferences with the Army Corps of Engineers (USACE) and DOE's Office of Environmental Management (EM).
- The USACE and contractor briefed the regulators on the status of the stack demolition during the 2/4/21 IAG monthly teleconference.
- The Mantis was removed from the stack 2/5/21. The contractor completed demolition of the stack to the ground 2/25/21.
- Loading of rail cars with stack demolition waste continued.
- Submitted a summary of the BSA radiological air monitoring data beyond the stack demolition exclusion zone to the regulators 2/5/21.

- Community Air Monitoring Plan (CAMP) air monitoring data was distributed to the regulators weekly.

Highlights of any changes to objectives and description of any changes in technical approach

- None.

Key Issues

- Although significant stack demolition progress was made in January and February, the overall project schedule has been delayed due to COVID and whether related issues.

Planned Actions for the Next 90 Days

- Continue S&M activities.
- Contractor to scabble the top of the stack pedestal, continue rail car loading and prepare for first waste shipment now scheduled for 3/6/21.
- Contractor to excavate soil/remove stack drain tank followed by the first of three on-site final status survey verifications by the Oak Ridge Institute for Science and Education.
- The next quarterly inspection of the confinement dome and outside areas is scheduled for 4/29/21.

SOIL AND WATER REMEDIATION

Current Month Technical Performance Analysis

Accomplishments and/or Technical Achievements:

- The IAG monthly teleconference was held 2/4/21 and included updates on HFBR stack, Building 650 demolition and PFAS Time Critical Removal Action.
- BHSO submitted the Phase 4 Characterization Report for the investigation of PFAS and 1,4-Dioxane in On-site and Off-site Monitoring Wells, Extraction Wells, and Treatment Systems to the regulators 3/1/21.
- Work continued on the Phase 5 PFAS characterization and planned remediation including:
 - Modifications to the 90% design documents for PFAS source area groundwater treatment systems are being made in response to BSA comments and groundwater modeling results.
 - BSA is evaluating locations for the installation of monitoring wells for the planned remediation systems.
 - The two new 20,000 pound carbon vessels were delivered and off-loaded adjacent to Building 492. The units are expected to be installed in Building 492 in March.
 - Initiated procurement planning process for system construction with the preparation of a draft acquisition plan.
- Following repair to the pump and piping at the well head, BGRR Sr-90 extraction well SR-3 was restarted.
- Carbon change-outs for the OU VI EDB and Airport treatment systems were performed 2/23/21 and 2/25/21, respectively.

- As requested by a new Industrial Park property owner, BSA abandoned three monitoring wells in advance of planned development in this area. A license agreement among BSA, DOE and the new property owner is being prepared.
- The Annual Land Use and Institutional Control Evaluation (LUIC) Letter Report was submitted to the regulators 2/18/21.
- The draft 2020 Environmental Monitoring Report for the Current and Former Landfill Areas is being reviewed by BSA and BHSO.
- Held kick-off meeting 2/8/21 for the 2020 Groundwater Status Report preparation.
- BNL Water and Sanitary Planning Team meeting was held 2/24/21.

Highlights of any changes to objectives and description of any changes in technical approach

- None.

Key Issues

- The Laboratory continued COVID-Phase 2 operations. The Groundwater Protection Group (GPG) maintained minimal staff working on-site to manage field activities. All other GPG staff continue to work remotely.
- BHSO distributed a letter to the regulators on the recommended addition of new CERCLA Areas of Concern (AOCs) and Operable Unit (OU) for PFOS, PFOA and 1,4-dioxane 2/23/21.
- BHSO submitted a response to NYSDEC 2/26/21 stating that Peconic River fish sampling for mercury and PCBs will occur annually, as conditions allow, under BNL's Environmental Surveillance Monitoring Program.

Planned Actions for the Next 90 Days

- The Laboratory and GPG will continue COVID-Phase 2 operations.
- The monthly IAG teleconference is scheduled for 3/4/21 and will include updates on the HFBR stack, Building 650 demolition, the Community Advisory Council (CAC) meeting and the Annual LUIC Evaluation.
- The CAC meeting is scheduled for 3/11/21 and will include HFBR stack demolition and PFAS/1,4-Dioxane characterization and planned remediation updates.
- The Brookhaven Executive Roundtable is scheduled for 3/17/21.
- Continue preparation of the Five Year Review and submit for internal BSA review.
- Submit the Time Critical Removal Action PFAS Plume Characterization Report (based upon Phase 5 data) to the regulators in mid-March.
- Complete design of the PFAS Source Area Groundwater Treatment Systems and submit construction bid documents to BSA's Procurement and Property Management Division in March.
- Prepare and submit the PFAS Source Area Groundwater Treatment Systems design report and Action Memorandum to the regulators in April.
- Perform repairs to the roof of the Building 96 Treatment System extraction well RTW-1 well-house.
- Submit the 2020 Environmental Monitoring Report for the Current and Former Landfill Areas to the regulators in early-March.